DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

UNSUITABLE MATERIALS INVESTIGATIONS

It is the intent of the GDOT to limit the start of geotechnical explorations (excluding the preliminary BFI's or Soil Surveys) until projects enter final design (i.e. after Preliminary Field Plan Review). This schedule has been put in place to reduce the potential that roadway alignments or other structures are not relocated or structural changes made that would require the geotechnical exploration be redone, thus costing the GDOT additional monies.

If the geotechnical consultant is working as a sub-consultant to a design engineer, scopes and budgets for the geotechnical exploration program are usually developed before preliminary design has started, which can be 12 to 18 months before the geotechnical exploration is started. When consultants prepare scopes of work for geotechnical studies, such scopes are usually developed without detailed site reconnaissances, without detailed project information, and usually based on the consultants limited knowledge of subsurface conditions in the project area. Also, there are times when configurations, relocation or structural changes in a project occur during final design (after the geotechnical exploration has started), thus requiring additional geotechnical evaluation and analyses.

To keep the overall project from being delayed while supplemental service agreements are prepared and approved, it is reasonable and customary that the geotechnical consultant plan for some unknowns during preparation of the scope and budgets. Specifically, allowances for additional borings and drilling footage are recommended to ensure that variances in subsurface stratigraphy can be properly defined and evaluated without delay or added costs to remobilize personnel and equipment to the site. For example, if 50 borings are planned with a total drilling footage of 300 feet, it would be acceptable to plan an additional 5 borings with an additional 30 feet of drilling to compensate for unanticipated subsurface conditions, etc. The same principals are true for laboratory testing, since the type and frequency of laboratory testing is dependent on the soil types and consistency/relative density determined from the drilling process. If additional field and laboratory testing are planned, the consultant should not forget to include in the scope and costs the personnel time necessary to execute and evaluate the additional testing.

This guideline should not be considered instructions for the consultant to develop contingency budgets, etc. Instead, it is a means to deal with subsurface conditions that can not be precisely determined until the exploration starts, or for minor changes in design that inherently happen during the course of design without delaying the project.